ABSTRACT OF THE DISCLOSURE

Computer programs and computer-implemented methods implement techniques for evaluating experimental data from a library of materials. The techniques receive a plurality of images of a library of materials that includes an array of members associated with locations in the library. User input identifying a plurality of regions of interest is received. A series of reduced data values is determined for one or more of the regions of interest as a statistical function of a plurality of pixel values for pixels in the corresponding regions. A figure of merit is calculated from one or more of the series of reduced data values for a library member at the corresponding library location. The regions of interest include a plurality of pixels in the images and correspond to locations in the library.